

Hyde Park Debate, Resolved: Altmetrics Are Overrated

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Hyde Park Debate, Resolved: Altmetrics Are Overrated

In Favor: Derek Law, Professor Emeritus, University of Strathclyde

Opposed: Maria Bonn, Senior Lecturer, Graduate School of Library and Information Science, University of Illinois

Moderator: Rick Anderson, University of Utah

The following is a transcript of a live presentation at the 2015 Charleston Library Conference.

Voting took place prior to the debate on the resolution "Altmetrics are Overrated." The vote was 44 in favor of the resolution, and 43 against the resolution.

Rick Anderson: All right. Welcome, everybody, to our annual Hyde Park Debate. My name is Rick Anderson. I am at the University of Utah, and I am serving as moderator today. I'd like to welcome our combatants. First, we will hear from, as befitting his position in favor of the proposition before us, we will first hear from Derek Law, who is Emeritus Professor of Informatics at the University of Strathclyde. We will then hear in opposition to the proposition Maria Bonn, who is senior lecturer at the Graduate School of Library and Information Science at Illinois University. For those of you who aren't familiar with how we do this, each of our contestants will open with a 10 minute prepared statement. Each of them will then respond to the other with a three-minute prepared statement. We will then have the balance of our time given over to a Q&A and discussion with the audience, and then we have 5 minutes left in our allocated time where we will close the discussion and have an exit poll, and whichever of our debaters has moved the larger number of people toward his or her position will be declared the winner.

Derek Law: (Written statement provided to moderator prior to debate)

Chairman, colleagues, distinguished visitors—and supporters of Altmetrics, it is my privilege to propose the motion that this house believes that Altmetrics are overrated. Now, when considering your vote, please note that it is not required to believe that they are wrong, ridiculous, and a

pernicious delusion—as I do—but simply that they are overrated. You should answer the proposition as put. I should make clear from the start that it is my view that the fundamental problem with such metrics is that they focus on what is measurable at the expense of what is important. They make quantitative, not qualitative, judgements in order to aid administrators rather than to advance research. The most meretricious of all of these metrics is Altmetrics, a term first coined five years ago.

I want briefly to explore four key points as to why I hold this view.

Firstly, we don't really know what they are, nor do their supporters. Secondly, they mechanistically measure meaningless data rather than using knowledge and skill to evaluate and judge. Thirdly, they rely on populist social media, highlighting what is deemed newsworthy, not what is important. Fourthly, they are very susceptible to gamification, a horrid neologism which has superseded the good old-fashioned word "cheating."

Now let's start by a quick look at the Altmetrics manifesto website. The first thing we note is the uncertainty over what the term actually means. Is it alternative metrics? (Yes, according to the site.) Is it an acronym? (No, because it could only stand for "A Load of Trash.") Or does it stand for article level metrics? (No, but that's a common usage.) Actually, none of this matters since, judging by the website, the most contentious issue to be decided is whether Altmetrics is a single word or whether there should be a dash between alt and metrics. The manifesto asserts that no one has the time to read everything. Perhaps if less time was spent on this introverted, narcissistic drivel of whether or not there's a dash, a little more time could be spent reading real research literature.

Having discovered that the proponents of Altmetrics differ on what it means and how it is spelled, let me next turn to the issue that it eliminates judgment in favor of someone else's number crunching. And very crude and unsubtle number crunching at that. There are huge differences between disciplines and how they communicate. What is appropriate for theoretical physics will not be appropriate for, say, Italian renaissance philosophy. And there must be huge unease once commercial companies step in and block usage through subscriptions. Equally, we are all aware of how, say, Google search results are manipulated and doctored by the algorithm used and how product placement becomes an issue.

Altmetrics is to metrics what alternative medicine is to medicine. It is the last refuge of the over-indulged self-absorbed first world middle classes who refuse to believe the evidence-based judgements of real science. There is an implicit assumption that nobody in the non-English speaking world and in developing countries who cannot or may not use Twitter and Facebook has anything useful to say. Just in passing we may note that 80% of the world's medical literature relates to diseases which kill only 20% of the world's population. Yet South literature relating to malaria or AIDS or dengue fever will largely be ignored by Altmetrics. At the moment, they rely on a very small dataset of around 3.5 million articles—compared with the fifty million in existence, growing by two million a year—and that excludes books, book chapters, conference papers, book reviews, and so on. Of course that number can and will be increased, but it will never capture all output in all disciplines. More importantly, Altmetrics relies on crowdsourcing rather than expert opinion and is almost entirely populist. It's like politicians arguing about the number of lines on each others' faces rather than addressing the real issue of economic growth.

And who would you trust? Speaking on October 7 at a conference held in Amsterdam, Juan Pablo Alperin, an online publications scholar at Simon Fraser University in Canada, said: "After five years, we still don't have much of an idea of what we're measuring." All that Altmetrics enthusiasts have

discovered is that their new metrics gave different results to traditional scholarly citations. Alperin's Twitter-based survey of discussions about Brazilian science also revealed that more than a third of those tweeting papers were not academics.

The general public is being asked to judge or influence the impact of scientific work, and any metric that relies even a little bit on public input will prove invalid. Altmetrics may be expected to grant high scores to works on climate change skepticism and on intelligent design, groundlessly raising pseudoscience to the level of science, at least in terms of measured impact. There are already numerous questionable publishers willing to publish articles on such topics. Popularizing Altmetrics means articles about Bigfoot and about astrology will register a greater impact than articles about curing cancer and discovering the nature of dark matter, for there are many more people interested in popular topics than there are interested in scientific ones.

Consider whether you would put your trust in Twitter or in the Nobel Prize Awards panels. Look at this year's crop of awards as an example. I shall mention only four.

Firstly, Angus Deaton, Nobel Laureate for Economics. Except Twitter assumed that it was an English comedian of the same name. There was a huge Twitter traffic about the comedian's improbable success.

Or what about the guy who won the Peace Prize for work in the Middle East and knowing the difference between Hamas and ISIL? With Twitter, step forward Donald Trump, who is much better known than the Tunisian National Dialogue Quartet. I believe he's also an American comedian.

Then the Nobel Prize for Literature. Some woman from Belarusia or somewhere in central Asia. Kim Kardashian was it? Certainly she's a bigger name on Twitter than Svetlana Alexievich.

And finally the winner of the Nobel Prize for Medicine, the Chinese researcher Tu Youyou. She

only ever published in Chinese, so doesn't feature at all on Twitter or Facebook. But hey, who needs Tu youyou when we have U2 too. That Bono is much more interesting on the role of traditional medicine in healing his injuries.

This leads naturally to the topic of gamification and how metrics can be manipulated. Now this is not uniquely a difficulty for Altmetrics. The most infamous case—although not the most discussed on social media—is probably that of the Netherlands. When the Dutch government began to use citation counts as a way of measuring how research funds should be distributed to universities, behavior changed within six months. Where Dutch academics had previously cited non-Dutch articles in great quantities, almost overnight they began to cite each other, pushing up their scores and therefore research income. And if we look at Altmetrics, much the same is true. The web is awash with tales of gamification and also helpful tips on how to push your ranking up, including paying companies to promote your research on social media. We have seen a good example of this within the last few weeks, where Amazon has begun to take action against some 1,400 people accused of writing high scoring reviews for a fee.

I have to say I am familiar with this skewing of statistics from personal experience and the principle that it's not what you know but who you know. My most cited publication is a small one and a long way from being my best. There were several co-authors, including Tim-Berners Lee, inventor of the World Wide Web. I'm not self-delusional enough to believe that my name is of any interest in this context. But social metrics push it up the rankings thanks to his involvement. So one trick for those of you who want to play with Altmetrics is just to make sure you have important co-authors. Another interesting fact is that there is a very limited correlation between Altmetrics and citation. However, there is a strong correlation between a high Altmetrics score and the appearance of a paper in Retraction Watch. In other words, bad papers get high scores.

And so to conclude:

- It is unclear exactly what Altmetrics are
- They measure what can be measured, not what is important; using populism, not quality, as the arbiter of value
- They can be manipulated to influence outcomes and personal standing
- They are aimed at informing the decisions of bureaucrats, funding agencies and government so that they can abdicate responsibility for making qualitative judgements and so pass the buck

The first metrics were invented a thousand years ago. Altmetrics has all the value, relevance, and accuracy of the eleventh century debate over how many angels could dance on the head of a pin.

And so I beg to move the motion that Altmetrics are overrated. Thank you.

Maria Bonn: (Written statement provided to moderator prior to the debate.)

Friends, Charlestonians, those who are not my countrymen, oh, I mean my esteemed opponent, and honorable moderator. Welcome. It is my privilege today to stand in opposition to the proposed resolution that Altmetrics are overrated. I will begin by demonstrating my contrarian impulses and posit that the problem with the resolution is not its patent absurdity (she says, looking meaningfully at her opponent) but its phrasing. Perhaps there was a typo? Altmetrics aren't overrated; ALL metrics are overrated. Altmetrics arise in response to over simplified citation counting and impact factors, but are a symptom of the same cultural disease—er, condition—which they seek to cure. (Here I am put in mind of my greens-averse daughter who, when presented with her first plate of kale, muttered, "Great what do you call this? Alt-spinach?" In our attachment to and desire for numbers by which we can measure the value and contribution of scholarship, we see manifest our pernicious (information) science envy; we believe

that truth only emerges from numbers, and quantification becomes almost a form of religious expression. We place our faith in counting, but numbers without interpretation offer limited value to understanding.

But wait. Let me contradict myself: all metrics are overrated? Yes. And all metrics are valuable. Do I contradict myself? Well then I contradict myself. We are large. We contain multitudes. Here, I no doubt reveal my earliest disciplinary principles and practices, wherein, as an instructor of rhetoric and composition, my constant exhortation to my students, often in the form of red ink marginalia, was “supply supporting evidence.” If you want to make a good argument, if you want to tell a good story, you need to be able to substantiate your claims, to provide illustrative details. You know, the difference between “I had breakfast” or even “I had a good breakfast,” and “I had some cheesy grits with two poached eggs and some collards sautéed in bacon fat, with a good sized mug of a rich dark roast coffee to go with.” And now, I come clean as not an information scientist, but an information humanist, one who values interpretation, critique, and critical approaches to data over the data itself. Like any other good knowledge worker, I want to understand the fields in which I toil, and I want to share that understanding with others. I want to hear and to tell good stories about the value and the reach of scholarship. And to tell those stories, I need material. And metrics, of all kinds, are good material.

It is because of these propensities on my part that I was so delighted when I first happened upon the work of ImpactStory. ImpactStory, its website tells us, is “an open-source, web-based tool that helps scientists explore and share the diverse impacts of all their research products—from traditional ones like journal articles, to emerging products like blog posts, datasets, and software. By helping scientists tell data-driven stories about their impacts, we’re helping to build a new scholarly reward system that values and encourages web-native scholarship.” I read this and say to myself, “finally, we are getting at the narratives needed to substantiate the claims of scholarly impact. Well, I wait patiently, but, for the most part, I have yet to

hear these stories. I look at altmetric profiles, and the narrative material is rich, but I’m still listening for the voices telling those stories. What, exactly, are our scholars having for breakfast?

In the summer of 2014, the journal that I edit, the *Journal of Electronic Publishing* (a journal which proudly uses altmetrics, by the way), published a special issue on “Metrics for Evaluating Publishing Value: Alternative and Otherwise.” In response to my call for submissions, and in the pages of the issue, I see attention to a variety of ways of measuring value, from the Altmetrics of blog link backs and tweet counts, to the attention of book reviewers, to computational analysis for measuring impact of documentaries intending to promote social justice. These reports, dare I say, stories, lend specificity to my point that there are many ways we can tell stories about the attention garnered by publication and about the use to which scholarship is put. For instance, we can conduct network analysis and produce visualizations; we can illustrate international impact by mapping metrical data with GIS; we can count sales of books, celebrate awards, collect curricular evidence of course adoption. All are ways of making an impact case, and all require interpretation and articulation to be meaningful.

I should avoid the pitfall into which, ahem, others tumble, of being too broad brush in my generalizations. My old shop, as well as my current publisher, Michigan Publishing, making me proud, seems to be starting to spin some yarns. In a case study published by Digital Science this year, Charles Watkinson, the director, begins laying out some of the uses of Altmetrics:

(And here I quote at length from the case study) In the first example, he—that is, Charles—highlights an open access article on female photographers in Bengal, India:

The publishing strategy employed by the editor and authors in this case was to use an open access model to disseminate this article widely to get more recognition of the work of these pioneers in India. The strategy succeeded judging by the spread of social media coverage the article received. The

second example has a legal context that is steeped in American history. The Altmetric attention to an article on Habeas Corpus and past suspensions of civil liberties by US presidents, in this case Abraham Lincoln, could have an impact on modern policy making in this area via coverage in media such as Salon, The Huffington Post and The Nation. The third example highlights the attention that open access monographs have the potential to get. A book on the principles of web writing for teachers and students at liberal arts colleges is attracting a lot of scholarly and social buzz and this can be measured and explored using Altmetrics. (Altmetric, n.d.)

So here, I pump my fist in celebration of narrative, but I also take a turn slightly in my argument, because now I ask, “Where are the numbers?” The scenarios here are seductive. Now substantiate them and allow those of us who are listening to judge whether this is the story the numbers are telling. Give me confidence these aren’t tall tales.

Yes, I want it all. I want the words and I want the numbers, lots of numbers of lots of kinds. But overall, at our moment in time, I mostly find myself like my children often were at bedtime, wanting more stories, more stories. Tell me about the research article that informed a senator who proposed a new policy. Tell me about the book that was assigned in a freshman course and changed the shape of an undergraduate’s major and led to a career that was entirely different than planned. Tell me about my witty remark at a Charleston Conference session that was retweeted across the globe, picked up by a journalist, and ended up in translation in a Japanese language newspaper being read by a market trader on her way to work in the morning.

I stand by my position on this resolution. Altmetrics aren’t overrated. But they are under used. By all means, establish and record Altmetrics. And then use them, and help our scholars to use them. Analyze, interpret, articulate, and argue, with supporting evidence. Let’s apply our considerable professional intelligence, as librarians, as publishers, as hybrids

of the two and information workers of all types, to making good evaluative use of the tools we have at hand and becoming good storytellers. With such a vast metrical harvest, what kind of meal can we bring to the research table? If it’s rich in both kale and spinach, perhaps we’ll see improved scholarly health. At this point you may be playing exasperated Watson to my meticulously observant Holmes (and yes, it would really please me if you were thinking that I have a bit of an air of a female Benedict Cumberbatch), and you are muttering, “Enough with the tediously obsessive accumulation and analysis of evidence.” But this is what is needed to find a solution (and a greater than 7% one at that). It is, you see, elementary my dear Mr. Law. Altmetrics are NOT overrated.

Rick Anderson: Derek, your response.

Derek Law: Thank you for that eloquent discourse. My loquacious opponent does indeed have the air of a female Benedict Cumberbatch, although the last time I saw him he was wearing a bit more makeup, who, of course, specializes in the smooth delivery of works of fiction, telling tall tales. It is perfectly fitting that she is speaking in an opera house where she might be seen to be playing the character of Poobah in the Mikado. Poobah, the Lord high everything else, whose specialty is a tale full of corroborative detail intended to give artistic very similar to an otherwise bold and unconvincing narrative. This year’s altmetric conference in Amsterdam took place just after I had to submit my written statement; sadly it confirmed everything I had been arguing. There was a debate about Altmetrics itself and what the term meant. There was a debate, but no clarity on what the word impact means and indeed exactly what we’re trying to measure, and we still haven’t had the answer to this because the impact cannot possibly be the same for researchers as for institutions and for readers and for funding agencies. There was also lots of discussion on the lack of standards or principles in the field, again a topic not addressed so far. The fact that there is not a pool of common data between Altmetrics providers makes it difficult to compare anything. A recent study that was presented at the conference compared Altmetrics data from different providers for a

similar sample of DOIs and found completely different results. To me, the case is so obvious that I thought I'd actually spend my minute and a half rather better by reading you a small chapter from one of the greatest works of American literature of the 20th century from one of my all-time favorite authors, James Thurber. In *Fables for Our Time* he tells the tale of the fairly intelligent fly. "A large spider in an old house built a beautiful web," note from 1939 that sly, prescient dig about the Web of science. A large spider in an old house built a beautiful web to catch flies. Every time a fly landed on the web the spider quickly devoured him so that when another fly came along he would think the web was a safe and quiet place. One day, a fairly intelligent fly buzzed around for so long without alighting that the spider appeared and said, "Come on down." But, the fly was too clever and said, "I never alight where I don't see other flies, and I don't see any other flies in your house." So he flew away until he came to a place where there were a great many flies. He was about to land there when a bee buzzed up to him and said "Hold it, stupid, that's flypaper. All of those flies are trapped." "Don't be silly," said the fly "they're dancing." And so he landed, and became stuck with all of the other flies, and the moral of this fable is there is no safety in Altmetrics—sorry there is no safety in numbers, or in anything else. They are overrated, and I urge you so to vote. Thank you very much.

Maria Bonn: First they throw an opera house at me, and then this Scotsman with a razor-sharp wit and tongue to go with it. But, we're not scared. So, my esteemed opponent levels several related criticisms at Altmetrics. One cluster of these decries the sort of information with which Altmetrics equips us; he tells us that Altmetrics focuses on what is measurable at the expense of what is important, that they mechanistically measure meaningless data rather than using knowledge to evaluate, that they eliminate judgment in favor of what's important, in favor of someone else's number crunching. Excuse me, I couldn't agree more. But the fault, Mr. Law, is not in our metrics but in ourselves. If we make poor

judgments in our use of those metrics, take ourselves to task, don't blame the bricks for the shoddily constructed house. My opponent also likens Altmetrics to alt-medicine, the last refuge of the overindulged, self-absorbed first world middle classes, oh and of millions of rural Chinese. At least in the last century, when we're sick, you see, we reach for what heals us. Emergency surgery rocks; so does a couple of acupuncture sessions for the right ills at the right time. When my 86-year-old mother's arthritis acts up, she reaches for the needles. She is also impressed by high numbers of Twitter followers, but my opponent would see that as a problem because my mom, a two-year college dropout and once a professional typist, you see, is definitely one of the general public, and Mr. Law has no truck with that hoi polloi. I would not be so bold as to speculate on how he voted on the recent ballot on Scotland's independence, but I detect in his remarks at least a lingering fondness for some kind of scholarly aristocracy. He tells us with dismay that Altmetrics are almost entirely populist. True, maybe, but if it is, isn't that great? If I, as a researcher, learned from this Brazilian study that Mr. Law cites that more than a third of those tweeting my paper were not academics I'd say, "Wow, cool!" and if this knuckleheaded public is giving bad science high scores in social media, it might be because it's being called—it's calling out those bad papers for public shaming.

Let me highlight one of my opponents other claims. He tells us the first metrics were invented 1,000 years ago and then some stuff about angels and pins, but funny I remember some stuff in the Iliad about numbers of spears and swords and that were being used by the Trojans to tell them a story about their chances in battle. What's lying in wait inside the Trojan horse of my opponent's claims?

Following a Q&A session, a final vote was taken on the resolution "Altmetrics are Overrated." 77 were in favor of the resolution, and 51 were opposed to the resolution. Derek Law was declared the winner of the debate.

Reference

Altmetric—Case study: Michigan Publishing. (n.d.) *Altmetric.com*. Retrieved from <https://www.altmetric.com/case-studies/michigan-publishing/>